

A NEW SPECIES OF INSTRUMENT: THE VENTED TRUMPET IN CONTEXT

Robert Barclay

Introduction

The natural trumpet is the one instrument not yet fully revived for use in the performance of Baroque music. A handful of recordings are available and very rarely a concert featuring solo performances on the instrument is given, but to a great extent the idiosyncrasies of the natural harmonic series are still considered to be beyond reliability in the recording studio or in live performance. Most current players have taken to using machine-made instruments with as many as four finger-holes placed in their tubing near to pressure nodes, so that the so-called “out-of-tune harmonics” of the natural series (principally *f'/f#*, and *a*) will not be unpleasant to modern sensitivity. The vented instruments that have resulted from this recent “invention of tradition” are often equipped with so many anachronistic features that the result is a trumpet which resembles its Baroque counterpart only superficially, whose playing technique is quite different, and whose timbre is far removed from that expected for Baroque music.

Among publications that deal with the compromises made to natural instruments in modern practice, those of Tim Collins, Richard Seraphinoff, and Crispian Steele-Perkins deserve especial mention. Collins provides an excellent summary of the characteristics of the natural trumpet, and an analysis of the current state of playing of the instrument.¹ Seraphinoff concentrates on the early horn, and discusses the pros and cons of the use of vent holes in so-called historical performances.² Steele-Perkins summarizes the development of the modern Baroque trumpet and provides practical advice on the selection of instruments.³ All three authors highlight the tension that has arisen within the field of early brass performance.

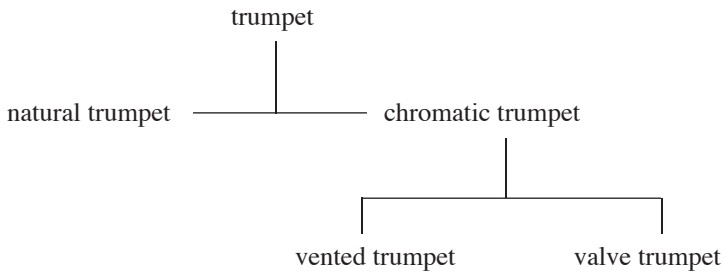
This article examines how the current state of affairs arose, and suggests a new terminology to avoid confusion among scholars and musicians, and to prevent misrepresentation to the general public. A good proportion of citations in this article are from the publications of the Historic Brass Society. This is deliberate. Because, by its title, the Society espouses specifically the historical aspects of brass instrument study and performance, the way in which its members and contributors express themselves may be used as a yardstick in determining the general level of scholarship.

Taxonomy

In their seminal 1914 publication *Classification of Musical Instruments*, Erich von Hornbostel and Curt Sachs categorize the trumpet as an instrument of cylindrical bore where “the airstream passes through the player’s vibrating lips, so gaining intermittent access to the air column which is made to vibrate.”⁴ They further subdivide the category into natural trumpets, in which no supplementary devices are employed to modify pitch, and

chromatic trumpets, in which added devices are used. Such added devices include slides, valves and vents. Slides and valves have the function of increasing or decreasing the length of the vibrating air column, thus affording access to further sets of harmonics. Vents have the effect of splitting the air column at nodal points, thus creating different modes of vibration. Vents may be covered either by keys or by the fingers. The classification system of von Hornbostel and Sachs has proved inadequate for the ever-increasing complexities of modern taxonomic description, especially of non-Western musical instruments.⁵ However, in the context of this paper, and using the first- and second-order levels described above, it remains perfectly adequate.

The instruments used in modern performance of Baroque trumpet music are of three distinct taxonomic types: at the first level there are natural trumpets, where vibration is generated by the lips with no added devices employed to modify pitch, and chromatic trumpets where such devices are employed. The chromatic trumpets are further subdivided into those instruments that employ vents in addition to the lips to modify pitch and those that employ valves for the same purpose. These categories are shown schematically below.



The valved trumpet in high pitch was the instrument normally substituted for the natural trumpet until the re-invention of the vented trumpet in the 1960s. Vented trumpets have long antecedents. Towards the end of the eighteenth century experiments with venting of natural instruments were carried out, as is the case with Shaw's "harmonic trumpet" of 1787. However, the development of a truly chromatic instrument through the application of a key system dates from a slightly later period. Examples of keyed trumpets are evidence of experimental applications which were to characterize the approach to all other orchestral instruments during the extended period of the Industrial Revolution. The result of applying keys to the trumpet created an essentially new instrument, as Dauprat remarked in 1824:

This attempt, already made on the Trumpet, has changed the timbre of the instrument to a point [so as] to give it a completely peculiar character, to make it an instrument which is neither Trumpet, nor any other known instrument. This species of Trumpet,

as well as the Ophicleide... can today enrich instrumental music and enrich composer's resources, but they cannot replace those from which they originated.⁶

This new 'species' of instrument was actually quite short-lived. As the superior properties of valves were further exploited in the early decades of the nineteenth century, vented instruments became generally obsolete.⁷ By the middle of the century valves had achieved total domination in brass instrument design.

Classically, all invention can be analyzed from the point of view of progression, charting a developmental line of improvement and refinement. The reinvention of the venting system that took place in the latter half of the twentieth century occurred under curiously parallel circumstances to the same experiments of nearly two centuries earlier. Once again, this time in the 1960s, dissatisfaction with the performance characteristics of the natural trumpet, then only partially revived, led to "improvement" by the use of fingerhole systems, providing the player with a means of correcting the problematic harmonics (chiefly numbers 11 and 13), and providing security for other notes by giving access to more widely spaced overtones.

The three-hole system, still used predominantly in continental Europe, was popularized by Otto Steinkopf. It comprises a thumb hole, transposing from C to F, and two smaller holes to eliminate alternate partials.⁸ A single-hole instrument featuring only the transposing vent was also available, but is not much used now. The four-hole system characteristic of the English school was pioneered by Michael Laird, and adopted by a number of other makers. In this system, two holes are used to correct harmonics 11 and 13, and the others eliminate alternate partials.⁹

Recent English trumpet-making tradition carried changes to the natural trumpet much further than that in Europe. A tapered leadpipe was applied to some models, thus improving centering of the notes. A modern, narrow-bore receiver was used in place of the wider one found on all period instruments, thus excluding the possibility of using old-style mouthpieces. Smooth transfer between the modern valved instrument and the new invention was the primary motivation of these developments. For speed in manufacture, seamless tubing, and spun or pressure-formed bells, produced by modern manufacturing methods, were used in favor of traditional hand-made components. On some models rigid metal stays, in place of the wood block and cord characteristic of the seventeenth and eighteenth centuries, were soldered between the components. In some extreme examples, the traditionally formed ball of sheet metal or a casting, which lies approximately at the center position of the bell, was replaced by an off-the-shelf brass doorknob.

By the time this series of developments had reached a stable state, instruments of distinct taxonomy had been produced. In order to avoid confusion throughout the remainder of this article, the natural trumpet will be given its correct taxonomic name, and the twentieth century invention described above will be termed the vented trumpet.

Vented Trumpets in Baroque Music

The early music movement has passed in thirty years from a radical challenge of orthodoxy (a true movement, in the 1960s definition of the term) to a species of mainstream respectability, and thus the values it originally embraced have been largely abandoned. Chief among those original values is experimentation. The new systems of orthodoxy which characterize trumpet playing in the modern “period instrument” Baroque fashion discourage experimentation, and thus very often neglect the idiosyncratic nature of the natural trumpet. Playing exactly “in tune,” and correcting mechanically “those notes that are unpleasing to modern hearing,”¹⁰ as the new invention is intended to do, sidesteps the issue of what musical result was truly expected of the instrument. For example, Dennis Ferry’s recording of the Scarlatti sonatas for trumpet and soprano, especially *Si suoni la tromba*, is rightly praised for its seamless virtuosity and brilliant musicianship.¹¹ There is no finer recording extant of this piece of music in this particular style, and it is enormously satisfying musically. However, the playing contains none of the tension and dynamism that one encounters implicitly in Jonathan Impett’s recording of the same piece on a natural instrument.¹² The dynamic resulting from the player’s “suspension of nature” in chromatic passages, as Impett has so well described it, is at the heart of Scarlatti’s use of the trumpet. Employing an instrument upon which chromatic phrasing is not a “suspension” but a routine may produce fine music, but it largely misses the composer’s point.

Loud playing provides easy equalization of open and stopped notes, and some players seem to imagine this is the way the trumpet sounded when in consort with other instruments. This aesthetic is a particular trait of players of English vented instruments. As an example, The Taverner Consort/Player’s recording of Praetorius’ setting of *In dulci jubilo*¹³ using a choir of six trumpets is, in fact, a glorious rendition of the work, but the brightness, loudness, and essentially modern character of the trumpet playing shows little regard for the period in which the music was written. Even allowing for the gentler, richer, and less strident playing to which he would have been accustomed (playing loudly, *and in tune*, on a natural trumpet was hardly called for), Praetorius still provides a measure of balance by instructing that the corps of trumpets be located “in a different place near by the church.”¹⁴ This clearly articulated instruction for a very necessary quarantine is ignored, but more to the point is the use of loud modern instruments. The resultant musical dynamic is highly anachronistic. The thoroughly modern trumpets are in opposition to the other, “authentic,” instruments of the ensemble; only with the acoustic juggling of the recording studio can the imbalance between ancient and modern be addressed, although hardly rectified. A brief visit to the historical and musical landscape of early seventeenth century Germany through the medium of this recording is definitely not in the cards.

The above is a gentle rebuke of one track of an otherwise beautifully rendered recording. But it makes the point that when a music director with taste and sensibility needs to employ a corps of six trumpeters, the resources he can call upon seem very limited and the equipment they bring with them historically inappropriate. As Crispian Steele-Perkins remarks,

All too often students at college come from rehearsing a Mahler symphony to be handed a so-called baroque trumpet, told that middle ‘C’, ‘E’ in the stave and top ‘G’ are played with the little finger’s hole open, and they proceed to blast in Mahlerian style in the coarsest manner, totally disrupting one of the most charming features of the Baroque orchestra—its homogeneity and natural blend of tone colour.¹⁵

What they learn in college they will continue to apply. This coarse playing on inappropriate instruments is a particular characteristic of the now-international style that originated with the English establishment, who are responsible for some of the most tasteless renditions of Baroque trumpet music on the planet.

Playing gently and with subtlety on a vented trumpet is very demanding, and few players consistently accomplish this. Steele-Perkins’ rendering of the opening section of Handel’s *Eternal Source of Light Divine* ranks as one of the finest examples of what can be done with this kind of instrument.¹⁶

Controversy Over What, Exactly?

An argument has been made that the controversy over the use of the vented trumpet is overstated, and that the use of fingerholes is not “that much worse than alternative fingerings on the recorder.”¹⁷ However, the absence of an extant natural recorder (i.e. one without vents) in any museum collection, and the potential difficulty of producing sufficient overblown notes on such an instrument to play melodically, indicates that the above defense of the vented trumpet was not clearly thought through. In fact, this faulty argument merely masks the true issue.

The true issue is that there is no controversy over the use of the vented trumpet, any more than there could be controversy over the use of a valved instrument. The controversy is not one of historical truth (however that may be defined at the close of the twentieth century), but one of everyday probity. It is of the same sentiment as that encountered in Taruskin’s definition of authenticity: “Authenticity is knowing what you mean and whence comes that knowledge. And more than that, even, authenticity is knowing what you are, and acting in accordance with that knowledge.”¹⁸ This author does not propound and never has propounded the exclusive use of the natural trumpet in performances of the Baroque repertoire. That would be mere purism, a charge that is often leveled, but has yet to be justified. This is the era of what Trevor Herbert has styled the “post-modernist brass player,” and controversy over choice of instrumentation in such an environment would be pointless. Use of a vented trumpet needs no defense, although there is nothing that obliges this author to enjoy the results. The exigencies of modern musical life dictate a virtuosity and flexibility undreamed of in the period during which much of the natural trumpet repertoire was written. The modern self-employed player is obliged to play to the highest standard on a wide range of instruments, in an even wider range of styles. A revealing discussion entitled “No Hot Air Here ...” gives the reader the profound impression that the luxury of concentrating solely upon one instrument is, indeed, a thing of the past.¹⁹ To quote Crispian Steele-Perkins again:

A dedicated performer [...] needs a good copy of a genuine antique trumpet upon which he can train his or her lip, and a modern finger-holed instrument with which to earn a living in an environment where time is money and where there are monstrous egos to be satiated.²⁰

And, as Andrew Pinnock has so wisely remarked on the subject of the technical achievements of the recording industry, “we all fall from grace at the studio door.”²¹

Systemic Dissimulation

Controversy over the vented trumpet does not concern the use of the instrument itself, but the way in which it is marketed. Post-modern deconstruction has ensured that authenticity would become a meaningless term. It has undergone such expansion and dilution since it first came to be used to signify the values of the early music movement, that it is now worthless. Taruskin has pointed out that “nowadays, in the area of musical performance, it sometimes seems as if authenticity, as a word and as a concept, has been stood on its head.”²² He further states that “the word needs either to be rescued from its current purveyors or to be dropped by those who would aspire to the values it properly signifies.”²³ This is nowhere more apparent than in descriptions of performances of the Baroque trumpet, and the same criticism can be levelled equally at use of the term “natural” in this context.

Throughout all phases of development of the twentieth-century vented trumpet, the instrument has continued to be referred to as “natural,” and this is still done consistently today. Thus, a tension has arisen between diverging taxonomy and parallel terminology. The need to distinguish between the natural trumpet as intended by the new terminology, and the natural trumpet as described taxonomically, has resulted in such terminological tautologies as “hole-less natural trumpet,” “unashamedly natural trumpet,” “real natural trumpet,” and so on. Occasionally one simply encounters the word “natural” set in parentheses, which is quite meaningless because the average reader is unaware of its context. Clearly, when the term “natural trumpet” occurs without modifiers in writing, even in scholarly sources, it is impossible to determine to which instrument reference is actually being made. As only one example of many, the reader’s attention is drawn to an interview entitled “A Unique Approach to the Modern and the Old,” where the topic of using the natural trumpet is discussed.²⁴ However, the reader is left with no clue anywhere in the text as to whether those being interviewed are referring to the natural trumpet, or its historical precursor, the natural trumpet. That this confusion should be encountered in the publication of an organization that seeks to establish a scholarly basis for the study of early brass music and instrumentation is regrettable.

The confusion of terminology above indicates the errors incurred and magnified by inexactitude. It could be argued that, as the development of the vented trumpet’s form was gradual and progressive, its nomenclature therefore remained conservative, was largely unarticulated, and eventually became unconsciously entrenched. Thus, the writers know whereof they speak and write, and assume the same knowledge among their readers. Such an analysis, however, ignores the potential commercial advantage of maintaining some

adherence to “authenticity.” From the 1960s onwards, performances of earlier music on instruments other than those of the modern orchestra were variously labelled as on “authentic instruments,” “original instruments” or “period instruments.” Thus, the need to conform to the stated values of the early music movement, while still also conforming to new orthodoxies arising from a commercialism that paradoxically prevented exploration of the instrument in its natural form, resulted in a forced dissimulation.

An internationally known symphonic player recently requested a trumpet from this author for eighteenth-century music, not “the earlier and more primitive version without the finger holes.”²⁵ When informed that the vented trumpet was a re-invention of the 1960s, he misheard this as 1660s. His insistence that “they must have had vents” in the seventeenth and eighteenth centuries was not, however, an indictment of his musical education or his powers of observation; it was an indictment of the culture in which his observations were made and his conclusions drawn. So ubiquitous is the vented trumpet in the modern Baroque orchestra that many players of symphonic music, jazz, and other genres believe it to have genuine historical antecedents. One contention, presented during an historic brass conference, in support of an earlier compromise to the natural instrument, was that “they were surely experimenting with fingerholes in the early eighteenth century.”²⁶ Although this contention is supported neither by documentary nor artifactual evidence (and is countered by two centuries and more of glorious, intricate, challenging, and idiomatic music ostensibly written for the natural instrument), a further supporting observation was made that “examples of such instruments have simply failed to survive,” thus invoking the intangible as a defense.²⁷

Arguably, then, if such a system of suspended beliefs is taken at face value by educated practitioners, and is also expounded among professionals in the field, it is highly probable that concert-goers and record buyers in the general public are even more convinced of the “authenticity” of the vented trumpet. Thus a confusion that may be represented merely as poor scholarship has wider implications when it reaches the public domain.

Robert Donington is one of the first commentators to deal with morality in the performance of early music, a discussion undoubtedly brought about by the rising tensions in the 1960s between the hegemony of a deeply rooted musical establishment and the break-away radicalism that characterized the first decade of the early music movement. Donington argues that music “lying both legally and morally within the public domain, is ours to use as best we like and can.”²⁸ So that if a performer is disrespectful of a composer’s original intentions, ignorant of the milieu in which the work was composed, or simply wishes to express the work in an individual way, there is no case to be made for censure on moral grounds. The charge of anachronistic or inauthentic interpretation reflects merely one of several independent critical viewpoints. If there is any moral lapse involved in performance, Donington argues, it lies with not with unwitting misrepresentation or artistic licence, but with deliberate falsification. “Giving explicitly or implicitly false information is, perhaps, another matter [he says], and in a bad case might almost amount to fraudulent misrepresentation.”²⁹

Examples of practices that stray beyond mere poor scholarship occur in the descriptive material included with recordings, in those cases where full details of the instrumentation used in the recordings are still published. For example, in a review of a recording made in 1991 it is pointed out that the trumpet used in the recording “is listed simply as a 1983 copy of a trumpet by J.L. Ehe, 1690” but that in the photograph accompanying the text “it does not look much like an Ehe trumpet, and it certainly does not sound like one. The bell seems to have a modern flare, which would make a very great difference in the tone quality.”³⁰ The reviewer questions also the presence of a tapered leadpipe and a modern mouthpiece. Simply put, it appears that the instrument illustrated is not the instrument described. Whether the profile of the bell, and other dimensions of the instrument, were actually taken from an extant trumpet by Johann Leonhard Ehe of 1690, and whether the original instrument from which it was copied had a system of vent holes or not, are perhaps issues for the owner of the instrument to take up with the maker. It is sufficient in this context merely to point out that a degree of confusion clearly exists, and appears to be exploited.

Another example, and the weak commitment that it inevitably encourages, is seen in the liner notes of a recording of Handel’s *Musick for the Royal Fireworks*.³¹ The list of instruments states that natural trumpets are used on the recording, although it is evident from listening to it that they are not natural trumpets by the definition used in this article.³² The following quotation provides excellent grounds for analysis:

The unique sound of such a huge baroque wind band is recreated on record for the first time. To be able to gather together such vast forces is a considerable tribute to the progress that has been made in “period instrument” playing, for ten years ago such a performance on instruments that the composer would have recognised would have been almost unthinkable.³³

The first sentence is equivocal on two counts: firstly, the “unique sound” of a baroque wind band cannot have been recreated by using anachronistic instrumentation, and secondly, other recordings using anachronistic equipment preceded this one, notably that of Johannes Somary and an augmented English Chamber Orchestra.³⁴ It can be conceded, however, that the sound is, in its own way, unique.

The phrase “the progress that has been made in ‘period instrument’ playing” leads the reader to assume that development has been along the lines of a re-establishment of eighteenth century practice, whereas in fact the opposite is truly the case. Because of the difficulty encountered in playing natural trumpets, a new instrument has been developed in parallel with the valved instruments employed in earlier recordings, and this is what is heard here. Furthermore, placing the term “period instruments” in quotation marks represents a concession only to those on the inside, to whom the true state of affairs is known. The average Baroque music listener will be mystified as to why this phrase should be singled out diacritically.

The reference to “instruments that the composer would have recognized” collapses under even cursory analysis. It is not to be doubted that Georg Friedrich Handel would have

“recognized” a three-valve orchestral trumpet, could one have been presented to him, in the same way that Gottlieb Daimler would have “recognised” a Ferrari Testarossa or Orville and Wilbur Wright a jumbo jet. Citing the composer’s recognition of instruments therefore clumsily sidesteps the true issue of whether the instruments are, indeed, contemporaneous with the music played upon them.

The above examples of systemic dissimulation are by no means unique; they have been isolated here for purely heuristic reasons, and can be taken to represent many other examples, both in the liner notes of recordings and in the literature at large. Can all such cases of mistaken identity be considered as “fraudulent misrepresentation”? Are false references to the natural trumpet in scholarly works justified? Can the mitigating argument be supported, that an unconscious confusion of terminology is at fault? The crux of any defense is that behavior must be judged by reference to the culture that informs its values. Simply put, is behavior bad if everybody is doing it? The answer is no, *unless* there is an external standard against which judgements can be made. And in this case there most certainly is. *From the outside* such behaviour appears very suspect indeed.

Thus far, however, the habits of thirty years are too ingrained, and there is still too much vested interest. So, rather than call a spade a spade, practitioners collectively invoke cognitive dissonance when faced with potential intellectual conflict. Every time a player of the vented trumpet describes the instrument as a natural trumpet, an automatic response clicks in to forestall an unresolvable psychic dilemma. One of the finest examples of this mechanism in action comes from popular fiction. In explaining the utter invisibility of an alien space ship that has landed in the middle of Lord’s Cricket Ground during a Test Match, Douglas Adams invokes the Somebody Else’s Problem Field: “It relies on people’s natural predisposition not to see anything they don’t want to, weren’t expecting, or can’t explain.”³⁵ Because this example is drawn from fiction it may be considered facile, but Adams is actually focusing upon a universal truth of human behaviour: if nobody notices it, surely it can’t be there? Unfortunately for the status quo, there is now a growing body of observers outside, looking in, and the emperor’s new clothes are becoming a little threadbare, not to say transparent.

The Renaissance of the Natural Trumpet

The present state of natural trumpet playing is not by any means as retarded as some of the examples in this article might lead the reader to believe. While there are certainly pockets of stiff resistance (especially among the English establishment, and its international spawn) it is heartening to learn that players are increasingly exploring the musical possibilities of the natural trumpet, in both concert performances and in recordings. Trumpeters in many countries are now playing the instrument consistently and with excellent results. To name only a few recordings, the Edward Tarr Ensemble’s rendition of the music of the Charamela Real,³⁶ the trumpet ensemble music of Philidor by La Simphonie du Marais,³⁷ Crispian Steele-Perkins’ *Shore’s Trumpet*,³⁸ and Jonathan Impett’s recording mentioned previously, are all successful explorations of the trumpet in its natural form. The majority of negative criticism aimed at the trumpet playing on such recordings comes from those who have a

hide-bound false-orthodoxy, causing their credibility to be seriously weakened.

Use of the natural trumpet outside the arenas of concert stage and recording studio is also making great progress. Students are being instructed with increasing frequency to block their vents and play “naturally.”³⁹ This stands in marked contrast to the university professor who, only a few years ago, reported to a conference of colleagues that he counselled his students to “make their finger movements as unobtrusive as possible.”⁴⁰ Ensembles who gather annually at the conference of the Historic Brass Society now present their closing concerts on the natural trumpet. The International Altenburg Competition, held in 1996 in Bad Säckingen, featured a section where natural trumpet playing was obligatory. Encouraging the use of an instrument that Altenburg himself would have “recognised” was an essential milestone along a road of rehabilitation and re-enfranchisement, although it was clear from the results that there is much work still to be done.

Critical comment upon performance is also maturing, especially in the pages of the *Historic Brass Society Newsletter*, which should very rightly lead the way. The following is excerpted from a review of 1996:

These are instruments with the ever present vent holes, and since the trumpet music is not the most technically demanding in the repertoire, it is unfortunate that [...] authentic copies of original English trumpets [were not used]. While the players possess a remarkable technique and have a commanding sound, the performance would certainly have been enhanced had original instruments or reproductions that more resemble the features of a true Baroque trumpet been used.⁴¹

Unfortunately, the impact of this closing statement of the review is diluted by paradoxical references to natural trumpets in the title and throughout the text. So there is still some ground yet to be won by the reviewers and editors of this *Newsletter*, before the brass society it represents can truly justify the adjective “historic.”

Appropriate Technology

In view of our modern enlightenment regarding performance of early music, and the resultant emphasis on “historically informed performance,” it would seem axiomatic that instruments made entirely by pre-Industrial Revolution techniques and with appropriate materials and tools should be used. This is certainly the case with strings and woodwinds, where traditionally made instruments, carefully crafted using the best materials, are invariably sought after. In the case of brass instruments, not only is the same approach aesthetically satisfying in terms of the genuine finished product, but it also produces a capability for manipulating the notes of the natural harmonic series; a capability largely absent on an instrument produced with machine-made components. As trumpet scholar Don Smithers has written:

In spite of the perfection of modern, machine-made components as opposed to the irregularities in 18th century handmade construction, the old instruments are much easier to play and are more in tune than modern facsimiles.⁴²

There is a physical basis for this: the acoustic response of the tubing (the Q factor) is dictated by, among other things, the smoothness of the interior. Hand-made components have a lower Q factor, making the harmonics more “bendable,” and are indeed more responsive because of their imperfection. Although this assertion comes as a surprise to some trumpet players, hand-making in all other instruments of the orchestra has always been a sign of high quality, and there seems no rational reason why this would not be the case with the brasses. At the time Smithers wrote the above words, few makers had recognized the acoustic advantages of hand-making, and few players had connected the information gained from playing original instruments with that gained from copies. Thus, when he was producing his finest recordings on the natural trumpet, Smithers was wrestling by main force with intractable instrumentation inimical to his aims. His instrument was not so much a medium through which he could work, as an adversary to be overcome by strength of will. The result in his recordings, particularly of the Bach cantatas, stands today as a lasting tribute to his energy and commitment.

In addition to the methods of manufacture, players who routinely practice on natural trumpets, and play them in public, report that the choice of mouthpiece is as critical as the choice of instrument. Even a carefully hand-made instrument will not meet expectations unless matched with an appropriate mouthpiece. Early mouthpieces are much larger than modern ones, and have a hemispherical cup and sharp throat. Clearly, only an instrument with an historically accurate wide-bore receiver will be open to such essential experimentation.

Nevertheless, if historically appropriate technology had been used in the making of copies of brass instruments in the 1960s, it is highly probable that the fingerhole compromise would never have arisen. It is only because players found modern-made reproductions so difficult to play in tune that “improvements” came to be made. In fact, in Germany, where most reproductions were made at that time, a drama of modern factory versus old-fashioned hand-making was played out. And just as happened in Nuremberg at the close of the eighteenth century, the industrial methods won the contest. Beautifully hand-made instruments, like those of the Brothers Thein,⁴³ gave way to factory-made instruments that superficially resembled their historical forebears, but had few of their playing characteristics. It is salutary, and somewhat chastening, to see similar sets of historical circumstances, 200 years apart, resolving themselves in the same way. This time, though, the trend is being reversed, as if to prove that history refuses to repeat itself. Many makers are now advertising lines of hand-made natural trumpets—and the more discriminating players are buying them. A cadre of trumpeters in France are to be especially commended for advancing further, in the last few years, our collective understanding of the playing idiosyncracies of the natural trumpet than has been managed anywhere in this century.

New Terminology

The term “Baroque trumpet” has been suggested to differentiate the modern vented instrument from the natural trumpet.⁴⁴ However, the designation “Baroque” still contains a measure of deception in this context—Baroque churches are not built of ferro-concrete,

Baroque sculpture is not of fibreglass, and Baroque altarpieces are not painted with acrylics—but it still represents probably the most viable compromise for use in a commercial setting. Although the term “vented trumpet” is used throughout this article, as is to be expected of a publication in a journal that flies history’s banner, it would be foolhardy to believe that such bare-faced objectivity would achieve exclusive currency among players, early music promoters, and the general public. So, although “Baroque trumpet” might well become the norm in the commercial milieu, “vented trumpet” must always be the way the instrument is described in such scholarly contexts as the publications of the Historic Brass Society.

In conclusion, the cover illustration of a recent recording shows how the term “Baroque trumpet” is coming to be used, and might well be used in the future. The instrument in the cover photograph is shown held in an uncharacteristic pose for a natural trumpet, with the fingers of the right hand poised, in an apparently non-supportive role, at the near end of the lower yard.⁴⁵ The instrument is a modern Baroque trumpet, with all that that implies—at least, until the species becomes extinct.

Robert Barclay works at the Canadian Conservation Institute in Ottawa, specializing in the care and preservation of musical instruments. He is the author of The Art of the Trumpet-maker, published by Oxford University Press. He has made more than sixty Baroque trumpets, and since 1993 he has offered trumpet-making workshops in the United States and Europe, in which participants learn the process of making instruments using pre-industrial techniques. One of these workshops is the subject of a television feature produced by the BBC in association with the Open University.

NOTES

¹Tim Collins, “So How Many Holes Does a Baroque Trumpet Have, Anyway?” *Historic Brass Society Newsletter* 9 (1996): 11-15.

²Richard Seraphinoff, “Nodal Venting on the Baroque Horn: A Study in Non-historical Performance Practice,” *The Horn Call* 27/1 (1996): 21-24.

³Crispian Steele-Perkins, “The Trumpet,” *Early Music Today*, February/March 1998, pp. 11-15.

⁴E.M. von Hornbostel, and Curt Sachs, “Classification of Musical Instruments,” trans. A. Baines and K.P. Wachsmann, *Galpin Society Journal* 14 (1961): 3-29.

⁵Margaret Sarkissian, “Lip-vibrated Instruments of the Ancient and Non-Western World,” in *The Cambridge Companion to Brass Instruments*, ed. Trevor Herbert and John Wallace (Cambridge: Cambridge University Press, 1997), pp. 5-7.

⁶Louis-François Dauprat, *Méthode de Cor-alto et Cor-basse* (Paris, 1824), Article 3. This translation is by Jeffrey L. Snedeker and appears in the *Historic Brass Society Journal* 4 (1992): 160-192.

⁷Ralph Dudgeon, “Keyed Brass,” *The Cambridge Companion to Brass Instruments*, p. 142.

⁸H. Kirchmeyer, “Die Rekonstruktion der Bachtrompete,” *Neue Zeitschrift für Musik* 122 (1961): 137-45.

⁹Edward H. Tarr, “The Trumpet Before 1800,” *The Cambridge Companion to Brass Instruments*, p. 101.

¹⁰The descriptive notes provided with the recording *Balletti: Sonaten, Serenaden am Hof zu Kresmier*

(MDG L 3369, 1990) state, regarding the 11th and 13th partials, that: "klingen diese Töne der Naturtonreihe für unsere heutigen Hörgewohnheiten unsauber."

¹¹ Scarlatti, *Melani, Arias et cantates pour soprano, trompette et basse continue*, Harmonia Mundi, HM 513 (1984).

¹² *Trumpet Collection*, Amon Ra, CD-SAR 30 (1987).

¹³ Schütz: *Weinachtshistorie; Praetorius: Motets*, Taverner Consort/Taverner Choir/Taverner Players, EMI, CDC 7 47633 2 (1987).

¹⁴ Michael Praetorius, *Syntagma Musicum II: De organographia* (Wolfenbüttel, 1619), p. 170.

¹⁵ Steele-Perkins, "The Trumpet," p. 12.

¹⁶ *Music for Royal Occasions*, Hyperion, CDA 66315 (1988).

¹⁷ Andrew Pinnock, review in *Galpin Society Journal* 44 (1991): 191.

¹⁸ Richard Taruskin, "The Authenticity Movement Can Become a Positivist Purgatory, Literalistic and Dehumanizing," *Early Music* 12/1 (1984): 3.

¹⁹ *Historic Brass Society Newsletter* 9 (1996): 20-25.

²⁰ Steele-Perkins, "The Trumpet," p. 12.

²¹ Review, *Galpin Society Journal* 44 (1991): 192.

²² Taruskin, "Authenticity Movement," p. 3.

²³ *Ibid.*

²⁴ *Historic Brass Society Newsletter* 10 (1997): 3-6.

²⁵ Personal communication to the author, March 1992.

²⁶ "The English Four-hole System," presentation at Historic Brass Society Conference, Edinburgh, 1994.

²⁷ Sadly, the motorcycle on which Henry VIII roared around Hampton Court Palace in the 1540s has also failed to survive.

²⁸ Robert Donington, *The Interpretation of Early Music* (New York: St. Martin's Press, 1974), p. 45.

²⁹ *Ibid.*, p. 44.

³⁰ *Historic Brass Society Newsletter* 4 (1992): 49.

³¹ G.F. Handel, *Musick for the Royal Fireworks*, Hyperion, CDA66350 (1989).

³² *Ibid.*, p. 3.

³³ *Ibid.*, p. 10.

³⁴ G.F. Handel, *Music for the Royal Fireworks*, Vanguard, VSQ-30020 (1973).

³⁵ Douglas Adams, *Life, the Universe and Everything* (London: Pan Books, 1982), p. 33.

³⁶ *The Silver Trumpets of Lisbon*, Musikproduktion Dabringhaus und Grimm, MD+G L 3348 (1990).

³⁷ *André Philidor: Marches, Fêtes & Chasses Royales*, FNAC Music, 592332 (1994).

³⁸ *Shore's Trumpet*, EMI/HMV CDC 7 47664 2, recorded 1986.

³⁹ There is a downside to blocking the vents of a machine-made, modern instrument. The notes center so effectively in such trumpets that bending the harmonics into tune can be a frustrating and futile exercise. Thus the student becomes convinced, not of the possibility of the exercise, but of its impossibility.

⁴⁰ "Beginning with the Baroque Trumpet," presentation at Historic Brass Society Conference, Amherst, 1993.

⁴¹ *Historic Brass Society Newsletter* 9 (1996): 58.

⁴² Don Smithers, K. Wogram, J. Bowsher, "Playing the Baroque Trumpet," *Scientific American* 254/4 (1986): 108-115.

⁴³ Jonathan Impett plays a finely made instrument after Haas by the Thein Brothers on the recording referred to in n. 12.

⁴⁴ Tarr, "The Trumpet before 1800," p. 101.

⁴⁵ *Virtuosa Trumpetkonzerte*, NAXOS, 8.553531S (1995).